

Customer No.: 31561
Application No.: 10/709,430
Docket No.: 12898-US-PA

AMENDMENTS

To the Claims:

1. (currently amended) An inkjet printer identification circuit, for providing a content stored in an inkjet print head for an inkjet printer, said inkjet print head disposed inside said inkjet printer, comprising:

a plurality of control lines;

a control circuit, providing a control signal to said plurality of control lines; and

an identification module, including a plurality of identification units, wherein each of said plurality of identification units comprises at least a control input terminal, an output terminal and a plurality of data input terminals, said plurality of data input terminals is coupled to a corresponding one of a plurality of memory units respectively, said control input terminal is coupled to corresponding one of said plurality of control lines, said identification units are responsive to said control signals received from said plurality of control lines for determining and outputting the content stored in at least one of said plurality of memory units via said output terminal. ~~an identification unit, said identification unit including at least a control input terminal, an output terminal and at least a data input terminal, said data input terminal being coupled to a memory unit for receiving a content stored in said memory unit, said control input terminal being coupled to one of said plurality of control lines, said identification unit responsive to said control signal for determining and outputting the content stored in said memory unit via said output terminal.~~

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2. (currently amended) The circuit of claim 1, wherein each of said memory ~~[[unit]]~~ units includes a fuse.

3. (currently amended) The circuit of claim 1, wherein each of said memory ~~[[unit]]~~ units includes a low-power resistor.

4-5. (cancelled)

6. (currently amended) The circuit of claim ~~[[5]]~~ 1, wherein each of said plurality of identification units comprises :

a plurality of AND gates, each of said plurality of AND gates including a plurality of AND gate input terminals and an AND gate output terminal, at least one of said plurality of AND gate input terminals being coupled to one of said plurality of data input terminals, the other said plurality of AND gate input terminals being coupled to said control input terminal; and

a NOR gate, including a plurality of NOR gate input terminals and a NOR gate output terminal, each of said plurality of AND gate output terminals being coupled to one of said plurality of NOR gate input terminals, said NOR gate output terminal being said output terminal of said identification unit.

7. (original) The circuit of claim 1, wherein said identification module is electrically coupled to said control circuit via a transmission line.

8. (original) The circuit of claim 1, wherein said plurality of control lines is power supply

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lines.

9. (original) The circuit of claim 1, wherein said plurality of control lines is address lines.

10. (currently amended) An inkjet printer identification module, for providing a content stored in an inkjet print head for an inkjet printer, said inkjet print head disposed inside said inkjet printer, comprising:

a plurality of identification units,

wherein each of said plurality of identification units includes at least a control input terminal, an output terminal and a plurality of data input terminals, said plurality of data input terminal is coupled to a corresponding one of a plurality of memory unit respectively, said control input terminal is coupled to corresponding one of a plurality of control lines, said identification units are responsive to said control signals received from said plurality of control lines for determining and outputting a content stored in at least one of said plurality of memory units via said output terminal.

~~an identification unit, said identification unit including at least a control input terminal, an output terminal and at least a data input terminal, said data input terminal being coupled to a memory unit for receiving a content stored in said memory unit, said control input terminal receives said control signal from said inkjet printer, said identification unit responsive to said control signal for determining and outputting a content stored in said memory unit via said output terminal.~~

11. (currently amended) The inkjet printer identification module of claim 10, wherein each of said memory [[unit]] units includes a fuse.

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12. (currently amended) The inkjet printer identification module of claim 10, wherein each of said memory ~~[[unit]]~~ units includes a low-power resistor.

13-14. (canceled)

15. (currently amended) The inkjet printer identification module of claim ~~[[14]]~~ 10, wherein each of said plurality of identification units includes:

a plurality of AND gates, each of said plurality of AND gates including a plurality of AND gate input terminals and an AND gate output terminal, at least one of said plurality of AND gate input terminals being coupled to one of said plurality of data input terminals, the other said plurality of AND gate input terminals being coupled to said control input terminal; and

a NOR gate, including a plurality of NOR gate input terminals and a NOR gate output terminal, each of said plurality of AND gate output terminals being coupled to one of said plurality of NOR gate input terminals, said NOR gate output terminal being said output terminal of said identification unit.

16. (currently amended) An inkjet printer identification method comprising:

using at least one control signal provided to an identification unit to read a content stored in at least a memory unit, wherein said memory unit is read via said identification unit based on an arrangement of a signal level of said control signal, wherein said control signal is logically operated with said content to obtain an output signal,

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wherein said identification unit includes at least a control input terminal, an output terminal and at least a data input terminal, said data input terminal is coupled to said memory unit, said control input terminal is coupled to one of said plurality of control lines, said identification unit is responsive to said control signal for determining and outputting a content stored in said memory unit via said output terminal.

wherein said identification unit includes:

a plurality of AND gates, each of said plurality of AND gates including a plurality of AND gate input terminals and an AND gate output terminal, one of said plurality of AND gate input terminals being coupled to one of said plurality of data input terminals, the other said plurality of AND gate input terminals being coupled to said control input terminal; and

a NOR gate, including a plurality of NOR gate input terminals and a NOR gate output terminal, each of said plurality of AND gate output terminals being coupled to one of said plurality of NOR gate input terminals, said NOR gate output terminal being said output terminal of said identification unit.

17. (original) The method of claim 16, wherein the step of reading said memory unit includes reading said content stored in said memory unit via an address line.

18. (original) The method of claim 16, wherein the step of reading said memory unit includes reading said content stored in said memory unit via a power supply line.

19. (original) The method of claim 16, wherein said content at least includes one of an ink

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cartridge product number, a number of inkjet nozzle, a volume of ink, a manufacturing date, a status of an ink cartridge, a type of an ink.

20. (original) The method of claim 16, wherein said memory unit includes a fuse.

21. (original) The method of claim 16, wherein said memory unit includes a low-power resistor.

22-28. (canceled)

29. (new) An inkjet printer identification circuit, for providing a content stored in an inkjet print head for an inkjet printer, said inkjet print head disposed inside said inkjet printer, comprising:

a plurality of control lines;

a control circuit, providing a control signal to said plurality of control lines; and

an identification module, including an identification unit, said identification unit including at least a control input terminal, an output terminal and at least a data input terminal, said data input terminal being coupled to an output of a corresponding memory unit for receiving a binary content stored in said memory unit, said content of said memory unit being obtained by said identification unit via said data input terminal, said memory unit being externally and electrically connected to said identification unit, said control input terminal being coupled to one of said plurality of control lines, said identification unit responsive to said control signal for determining and outputting a

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determined content based on the binary content stored in said memory unit via said output terminal, wherein said determined content generated by said identification unit is outputted from said output terminal.

30. (new) An inkjet printer identification module, for providing a content stored in an inkjet print head for an inkjet printer, said inkjet print head disposed inside said inkjet printer, comprising:

an identification unit, said identification unit including at least a control input terminal, an output terminal and at least a data input terminal, said data input terminal being coupled to an output of a corresponding memory unit for receiving a binary content stored in said memory unit, said content of said memory unit being obtained by said identification unit via said data input terminal, said memory unit being externally and electrically connected to said identification unit, said control input terminal receives a control signal from said inkjet printer, said identification unit responsive to said control signal for determining and outputting a determined content based on said binary content stored in said memory unit via said output terminal, wherein said determined content generated by said identification unit is outputted from said output terminal.

31. (new) An inkjet printer identification method comprising:

using at least one control signal provided to an identification unit to read a content stored in at least a memory unit, wherein said content of said memory unit is read from an

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output of said memory unit by said identification unit via a data input terminal based on an arrangement of a signal level of said control signal, and said data input terminal is electrically coupled between said memory unit and said identification unit, wherein said control signal is logically operated with said content to obtain an output signal, and said output signal is outputted from an output terminal of said identification unit.

32. (new) An inkjet printer identification method characterized in using a control signal provided to an identification unit to read a content stored in one of a plurality of memory units by said identification unit, wherein a content of one of said plurality of memory units is read from an output of said one of said plurality of memory units and inputted into said identification unit via a data input terminal based on an arrangement of signal level of said control signal, and said data input terminal is electrically coupled between said one of said plurality of memory units and said identification unit, wherein said control signal is logically operated with said content to obtain an output signal, and said output signal is outputted from an output terminal of said identification unit.